

## SYSTEM DATA SHEET

# Sikafloor® MultiDur ES-31 ECF

Smooth, conductive, epoxy flooring system with very good chemical and mechanical resistance

## DESCRIPTION

Sikafloor® MultiDur ES-31 ECF is a smooth, conductive, coloured, epoxy flooring system. It provides a durable surface with very good chemical and mechanical resistance.

## USES

Sikafloor® MultiDur ES-31 ECF may only be used by experienced professionals.

Sikafloor® MultiDur ES-31 ECF is used in industrial buildings such as:

- Automotive facilities
- Bunding areas
- Chemical and processing facilities
- Electronic facilities and data centres

## FEATURES

- Good resistance to abrasion
- Electrostatically conductive
- Very good resistance to specific chemicals
- Very good mechanical resistance
- Impermeable to liquids

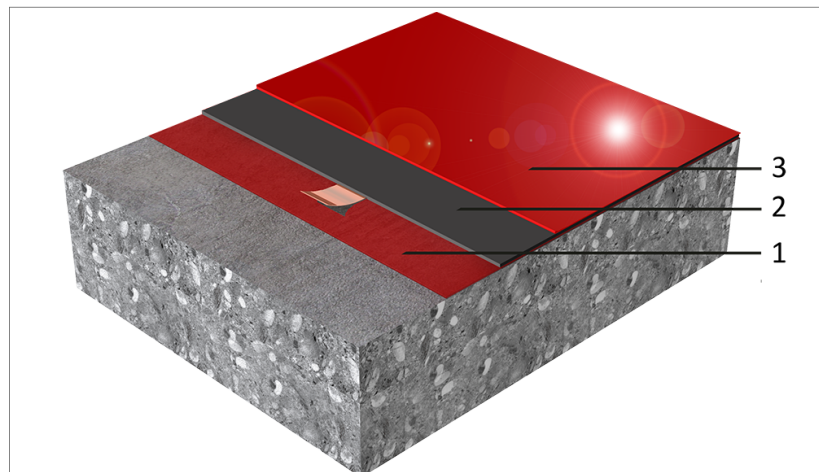
## CERTIFICATES AND TEST REPORTS

- Fire Testing EN ISO 9239-1, Sikafloor® MultiDur ES-31 ECF, University of Ghent
- Spark Resistance, UFGS-09 97 23, Report No. P 13185-E

## SYSTEM INFORMATION

### System structure

### Sikafloor® MultiDur ES-31 ECF



1.	Primer	Sikafloor®-161 HC Sikafloor®-160 HC Contact Sika Technical Service for information on choosing the right primer for your project.
2.	Conductive primer	Sikafloor®-220 W Conductive + Sikafloor® Conductive Set
3.	Top coat	Sikafloor®-381 ECF filled with with 20 % Quartz sand (0.1–0.3 mm)

**IMPORTANT**

**System structure**

The system structure as described in the table must not be changed.

<b>Composition</b>	Epoxy
<b>Appearance</b>	Smooth, gloss finish
<b>Colour</b>	Available in various colour shades.
<b>Nominal thickness</b>	1.5 mm

**TECHNICAL INFORMATION**

<b>Tensile adhesion strength</b>	≥ 1.5 MPa	(EN 1542)
<b>Reaction to fire</b>	Class B <sub>fl</sub> -s1	(EN 13501-1)
<b>Electrostatic behaviour</b>	Resistance to ground	$R_G < 10^9 \Omega$ (IEC 61340-4-1)
	Typical average resistance to ground	$R_G < 10^5 - 10^6 \Omega$

**ESD MEASUREMENT CONDITIONS AND SPECIFICATIONS**

All measurement values for the system stated in the System Data Sheet (except those referring to proof statements) were measured using the following equipment and ambient conditions:

<b>Condition or Equipment</b>	<b>Specification</b>
Size of ESD-footwear	42 (EU) (UK: 8; US: 8.5)
Test person weight	90 kg
Ambient conditions	+23 °C and 50 % relative humidity
Measuring device for measuring resistance to ground	Metriso 2000 or 3000 (Warmbier) or comparable
Surface resistance probe	Carbon Rubber electrode. Weight: 2.50 kg
Rubber pad hardness	Shore A (60 ±10)
Measuring device for measuring body voltage generation	Walking Test Kit WT 5000 (Warmbier) or comparable

**IMPORTANT**

**ESD footwear requirements**

The ESD shoes used in the EPA must have a resistance of < 5 MOhm according to IEC 61340-4-3 at climate class 1 (12 % relative humidity and +23 °C). In order to achieve charges of < 30 volts of human body charge during the walking test (at 12 % relative humidity and +23 °C), we recommend using the following ESD shoes: Weeger ESD clog, art. 48512-30, www.schuhweeger.de.

Note: Measurement results can be affected by ESD clothing, ambient conditions, measurement equipment, cleanliness of the floor and the test personnel.

## APPLICATION INFORMATION

Consumption	Layer	Product	Consumption
	Primer	Sikafloor®-161 HC Sikafloor®-160 HC	1-2 × 0.3–0.5 kg/m <sup>2</sup>
	Conductive primer	Sikafloor®-220 W Con- ductive Sikafloor® Conductive Set	0.08–0.10 kg/m <sup>2</sup> 1 earthing point per 200–300 m <sup>2</sup> , minimum 2 per room.
	Top coat	Sikafloor®-381 ECF filled with quartz sand F34	2.5 kg/m <sup>2</sup> Binder + quartz sand 1 +10 °C to +15°C: without filling +15°C to +20°C: filled 1 : 0.1 by weight +20 °C to +30°C: filled 1 : 0.2 by weight

All values have been determined using quartz sand F 36 (0.1-0.3 mm). Other quartz sand type will have an effect on the product, such as filling grade, levelling properties and aesthetics. Generally, the lower the temperature the less the filling grade.

Note: Consumption data is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply the Product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.

Ambient air temperature	Maximum	+30 °C
	Minimum	+10 °C
Relative air humidity	Maximum	80 % r.h.
Dew point	Refer to the individual Product Data Sheet.	
Substrate temperature	Maximum	+30 °C
	Minimum	+10 °C
Substrate moisture content	Refer to the individual Product Data Sheet.	

## BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### APPLICATION

#### ESD CONDUCTIVITY MEASUREMENTS

Recommended number of conductivity measurements is specified in the following table:

Ready applied area	Number of measurements
< 10 m <sup>2</sup>	6
≥ 10 m <sup>2</sup> and < 100 m <sup>2</sup>	10 to 20
≥ 100 m <sup>2</sup> and < 1000 m <sup>2</sup>	50
≥ 1000 m <sup>2</sup> and < 5000 m <sup>2</sup>	100

If the measurements yield values that are outside of the agreed specification, follow these steps:

1. Carry out one additional measurement within a radius of approximately 30 cm around the original measuring point.

If the value of the new measurement meets the agreed specification, the original measurement can be disregarded.

If the value of the new measurement does not meet the agreed specification, repeat the measurement described above until the fulfilment of the requirements have been verified.

If the requirements cannot be verified, contact Sika® Technical Services.

#### INSTALLATION OF EARTHING POINTS

Refer to Sika Method Statement: Sika Method Statement — Sikafloor® mixing and application

Number of earthing connections per room: Minimum of 2 earthing connections. The optimum number of earthing connections depends on the local conditions and must be specified on drawings or other contract documentation.

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

## LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

#### PT. Sika Indonesia Head Office and Manufacturing

Jl. Raya Cibinong-Bekasi Km.20  
Limusunggal-Cileungsi  
Bogor 16820-Indonesia  
Tel. +62 21 8230025, Fax +62 21  
8230026



#### SYSTEM DATA SHEET

Sikafloor® MultiDur ES-31 ECF  
January 2025, Version 03.01  
02081190000000013

SikafloorMultiDurES-31ECF-en-ID-(01-2025)-3-1.pdf

